

CLAIMS

BEST AVAILABLE COPY

- Sub
C1
5
1. An amino acid sequence comprising the sequence presented as SEQ ID No. 1 or a variant, homologue, fragment or derivative thereof.
2. A nucleotide sequence encoding the amino acid sequence as defined in claim 1.
- Sub
C1
10
3. A nucleotide sequence comprising the sequence presented as SEQ ID No. 2 or a variant, homologue, fragment or derivative thereof.
4. A nucleotide sequence that is capable of hybridising to the nucleotide sequence according to claim 3, *OR the opposite strand of*
- 15
5. A nucleotide sequence that is capable of hybridising to the nucleotide sequence according to claim 4.
6. A vector comprising the nucleotide sequence according to *Claim 2* ~~any one of claims 2 to 5~~.
- 20
7. *Claim 2* ~~A host cell into which has been incorporated the nucleotide sequence according to any one of claims 2 to 6.~~
8. An assay method for identifying an agent that can affect PDEXV activity ~~or expression~~, the assay method comprising
- 25
- contacting an agent with an amino acid according to claim 1 ~~or a nucleotide sequence according to any one of claims 2 to 7~~; and
- measuring the activity ~~or expression~~ of PDEXV;
- 30
- wherein a difference between a) PDE activity ~~or expression~~ in the absence of the agent and b) PDE activity ~~or expression~~ in the presence of the agent is indicative that the agent can affect PDEXV activity ~~or expression~~.

PCS10349APME

9. An assay method according to claim 8 wherein the assay is to screen for agents useful in the treatment of a cardiovascular disorder and/or disorders found in any one or more of the corpus cavernosum, kidney, liver, skeletal muscle, testis, prostate.

5 10. A process comprising the steps of:

- A
- (a) performing the assay according to claim 8 ~~or claim 9~~;
- A
- (b) identifying one or more agents that do affect PDEXV activity ~~or expression~~; and
- 10
- (c) preparing a quantity of those one or more identified agents.

11. A method of affecting *in vivo* PDEXV activity ~~or expression~~ with an agent;

15 wherein the agent is capable of affecting PDEXV activity ~~or expression~~ in an *in vitro* assay method;

wherein the *in vitro* assay method is the assay method defined in claim 8 ~~or claim 9~~;

20 12. ~~Use of an agent in the preparation of a~~ pharmaceutical composition for the treatment of a disease or condition associated with PDEXV, ~~the agent is capable of having an effect on the activity or expression of PDE when assayed in vitro by the assay method according to claim 8 or claim 9.~~ *said composition comprising an agent*

25 13. An enzyme capable of having an immunological reaction with an antibody raised against PDEXV.

14. A nucleotide sequence coding for a PDE, wherein the nucleotide sequence is obtainable from NCIMB 41025.

30 15. A PDE wherein the PDE is expressable from a nucleotide sequence obtainable from NCIMB 41025.

BEST AVAILABLE COPY

INS
A2

A

PCS10349APME

16. ~~Use of an agent which has an effect on the activity of PDEXV or the expression thereof in the preparation of a pharmaceutical composition for the treatment of a disease or condition associated with PDEXV.~~

5 17. Use of a PDEXV gene and/or expression product thereof in the preparation of a medicament for the treatment and/or modulation of disturbances associated with an imbalance or disturbance of PDEXV.

10 18. Use according to claim 17 wherein the PDEXV and/or expression product thereof is used to screen for agents that can modulate the activity of the PDEXV and/or expression product thereof.

15 19. A PDEXV agonist wherein the PDEXV is as defined in claim 1 or is the nucleotide sequence coding for same.

20 20. A PDEXV antagonist wherein the PDEXV is as defined in claim 1 or is the nucleotide sequence coding for same.

25 21. A recombinant PDEXV enzyme.

22. A recombinant nucleotide sequence encoding a PDEXV enzyme.

23. A PDEXV enzyme substantially as described herein.

BEST AVAILABLE COPY

00563542-091500